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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/812,360	03/30/2004	Katsunari Morishima	001309.00058	4113
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DATE MAILED: 08/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/812,360	Applicant(s) MORISHIMA ET AL.	
	Examiner Katherine W. Mitchell	Art Unit 3677	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 and 15-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 15-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 August 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

The request filed on 5/25/2006 for a Request for Continuing Examination (RCE) under 37 CFR 1.114 is acceptable and an RCE has been established. Any previous finality is hereby withdrawn and a new action on the merits follows. Any newly-submitted claims have been added. An action on the RCE follows.

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the nut retaining apparatus 283 must be shown or the feature(s) canceled from the claim(s). "283" appears in Fig 6, but it is pointing to the nut. No new matter should be entered. Applicant has responded that "283", since it has an arrow, is clearly pointing to the nut retainer. Examiner disagrees. The arrow is in the middle of the nut - is it supposed to be pointing to the end of the hole? Is it the hatched structure of Fig 6?

Further, applicant points out that the arrows mean "the item being pointed to". Referring to Fig 4, what is "N" pointing to? It appears to be the entire assembly. How is it different that what "A" is pointing to? (same question refers to Fig 6 - how are "A" and "N" identified?) Fig 4 - what structures are "28" and "284" pointing to - they both appear to be pointing to the cube shaped unit of Fig 4.

Referring to Fig 6, 2 separate "284"'s appear to be pointing to 2 completely different structures.

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Further, claim 1 has the body comprising a nut retaining apparatus, and the nut retaining apparatus comprising a nut retainer and a nut holder. Some drawing should show these as/with the subordinate relationships.

2. Fig 5 is two Figures - "5A" and "5B", This was addressed, but note that the specification also needs to be amended to reflect this change.

3. Applicant claims a nut retaining apparatus comprising a nut retainer. The nut retainer is described as "283", but the only figure (fig 6) with such a reference number has this pointing to the nut. "281" is described and shown as the nut holder. How does the nut retaining apparatus comprise the nut holder? How does the nut retaining apparatus differ from a nut retainer? "N" in Fig 6 is disclosed as the nut retaining apparatus, but as best examiner can tell, "N" includes the bolt, the body, the hole, etc. which is not possible since claim 1 requires the nut retaining apparatus to be distinct from the bolt, the body, and the hole.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering

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of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

4. The disclosure is objected to because of the following informalities: Examiner cannot find where the nut retaining apparatus is described as structurally distinct from the nut retainer. What is the nut retaining apparatus?

Appropriate correction is required.

Claim Clarifications

5. Applicant has positive recitation of the body in the independent claims, [is mounted on the body] thus examiner is considering the claims drawn to the COMBINATION nut retaining apparatus and body.

6. Claim 1 has the nut holder mounted on the body, but the body comprises the nut holder, thus applicant is having part of something mounted on itself. For example, a body comprises shoulders, but shoulders are connected to the neck, not the body.

7. Claim 1 has the force applied directly to the body and not the nut holder, but again the nut holder is part of the body, so if force is applied to the body, it inherently can be applied to the nut holder.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 1-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

10. Claims 1 and 15 recite "... insert a bolt "into an end surface of the body from a predetermined inclined direction tangent to the end surface of the body". Tangent has now been defined with respect to the end surface, but applicant's drawings and description do not appear to show that the direction is indeed tangent to the end surface -- applicant's bolt/bolt insertion direction clearly intersects the end surface:

tan·gent (tăn-jent) *adjective*

1. Making contact at a single point or along a line; touching but not intersecting. ¹

Where applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one reasonably skilled in the art on notice that the applicant intended to so redefine that claim term. *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999). The term "tangent" in claims 1 and 15 is apparently used by the claims to mean something other than --not intersecting--. The term is indefinite because the specification does not clearly redefine the term.

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Claims 2-13 and 16-22 are rejected as depending from claims 1 and 15 respectively..

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 1-2,4-6,8-10, 12--13,15-16,19-20, 22 are rejected under 35 U.S.C. 102(a) as being anticipated by Schaaf USP 2820499.

Re claims 1 and 15: As best understood by examiner, (examiner notes nut retainer 283 has not been shown) Schaaf teaches a nut retaining apparatus mounted on a body (28) comprising a nut retainer (26 and 23) on an insertion end of the bolt insertion hole in the body, and against which the internally threaded (col 2 lines 32-36) nut member (10) abuts, and a nut holder (25) that supports the nut and is mounted on the body, thereby retaining the nut member at a position of the nut retainer. The predetermined position is determined by the bolt bore - see Fig 4. Fig 4 clearly shows the nut member and bolt inclined with respect to a direction tangent to the body. The tangent limitation is, as noted above, unclear, but examiner assumes that --inclined with respect to the end surface-- is what is meant. Examiner notes applicant has not claimed direct mounting or connection, and it has been held that the recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed

structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987). The nut member is retained and supported in the inclined direction continuous with the bolt hole (Fig 4). Since the structure meets the claimed limitations, it is considered that it would exhibit the same force transmission properties, in order to be considered enabled.

Re claim 2 and 8-10, 16, The nut holder has side support surfaces, and end surface support and engaging portion as described as shown in Fig 4 and 3.

Re claim 4: The end surface has a hole 38 in communication with threaded nut hole - see Fig 3 and 4.

Re claims 5-6 and 19-20: The nut holder is mounted to the body from below something. Further, since applicant is claiming the combination nut retaining apparatus and body, the method of forming the device is not germane to the issue of patentability of the device itself. Therefore, this limitation has not been given patentable weight.

Re claims 12-13: The nut retaining apparatus is part of a member coupling device (the overall structure). It is capable of coupling a lateral frame member (which could be as represented by "42" in Fig 3 or 4) to the end surface of the body. It has been held that the functional "whereby" {and thereby -- examiner} statement does not define any structure and accordingly cannot serve to distinguish. *In re Mason*, 114 USPQ 127, 44 CCPA 937 (1957).. A member coupling device can be considered the entire unit shown by bracket in Fig 1 and including body 28 of Fig 2-4.

Re claim 22: The nut retainer includes a side surface retainer for contact with a side surface of nut member, and an end surface retainer for contact with an end surface of nut member (Fig 3 --inside surface of 25, facing "19" is side surface retainer, surface

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at 23 against which nut member rests (in Fig 1-3) is the end surface retainer, as is surface 23 for other nut end.)

13. Claims 1--6,8-10,12-13,15-20 and 22 are rejected under 35 U.S.C. 102(a) as being anticipated by Eaton USP 192620.

Re claims 1 and 15: As best understood by examiner, Eaton teaches a nut retaining apparatus mounted on a body (Fig 1-3) comprising a nut retainer (A) on an insertion end of the bolt insertion hole in the body (Fig 30, and against which the nut member (Fig 1 and 3) abuts, and a threaded nut holder (B) that supports the nut and is mounted on the body, thereby retaining the nut member at a position of the nut retainer. The predetermined position is determined by the bolt bore - see Fig 1 and 2 and the angle of "B" - since the hole in end surface "A" is a slot b, the bolt can be at an angle..

The tangent limitation is, as noted above, unclear, but examiner assumes that -- inclined with respect to the end surface-- is what is meant, and at a position between that shown in Fig 1 and Fig 2, the nut would be so inclined, and it is possible to insert the bolt through the bolt insertion hole at an inclined angle, and that upon threading, the the mating would then cause the bolt to line up perpendicular "B" but it could be inclined with respect to the end plate. Examiner notes applicant has not claimed direct mounting or connection, and it has been held that the recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987). The only structural limitations are a nut retainer provided on an insertion end of a body's hole, and a nut holder mounted on the

body. Since the structure meets the claimed limitations, it is considered that it would exhibit the same force transmission properties, in order to be considered enabled.

Re claims 12-13: The nut retaining apparatus is part of a member coupling device (the overall structure). It is capable of coupling a lateral frame member (which could be as represented as in Fig 3) to the end surface of the body. It has been held that the functional "whereby" {and thereby -- examiner} statement does not define any structure and accordingly cannot serve to distinguish. *In re Mason*, 114 USPQ 127, 44 CCPA 937 (1957). A member coupling device can be considered the entire unit shown including body of Fig 3.

Re claims 2 and 8,9,10,16: The nut holder/retainer (examiner is not sure of the difference in a nut retainer and a nut holder) B has side support surfaces (v-shaped groove Fig 1) and end surface support (flat surface of A which directly abuts the nut in Fig 1 and 3). The engaging portion is the side of A have spurs t.

Re claims 3,17: The side supports are vee shaped groove - see Fig 1.

Re claims 4 and 18: The end surface has a hole in communication with threaded nut hole - see Fig 3.

Re claims 5-6 and 19-20: The nut holder is mounted to the body from below something. Further, since applicant is claiming the combination nut retaining apparatus and body, the method of forming the device is not germane to the issue of patentability of the device itself. Therefore, this limitation has not been given patentable weight.

Re claim 22: The nut retainer includes a side surface retainer for contact with a side surface of nut member, and an end surface retainer for contact with an end surface

of nut member (Fig 1 --surface of notch "f" is side surface retainer, flat surface against which nut member rests (the nut end not visible in Fig 1) is the end surface retainer.

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claims 7, 11, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schaaf or Eaton.

Re claims 7, 11, and 21: As discussed above, Schaaf or Eaton teaches all the limitations except the material of construction as resin or aluminum. It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have selected resin or aluminum as the material of construction, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of engineering choice from known alternatives. *In re Leshin*, 125 USPQ 416. The method of forming the device (i.e., by die casting) is not germane to the issue of patentability of the device itself. Therefore, this limitation has not been given patentable weight.

Response to Arguments

16. Applicant's arguments filed 4/25/2006 and entered with RCE of 5/25/2006, hereafter referred to as 4/26/2006, have been fully considered but they are not persuasive.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., nut member connected directly to the body, securely holding nut member in an inclined position.) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). "Mounted" does not require direct positioning.

mount (mount) *verb*

verb, transitive

2. To place ~~oneself~~ upon; get up on: *mount a horse; mount a platform.*
5. To set in a raised position: *mount a bed on blocks.*
6. a. To fix securely to a support: *mount an engine in a car.* b. To place or fix on or in the appropriate support or setting for display or study: *mount stamps in an album; mount a specimen on a slide.*
10. a. To set in position for use: *mount guns.* b. To carry as equipment: *The warship mounted ten guns.*²

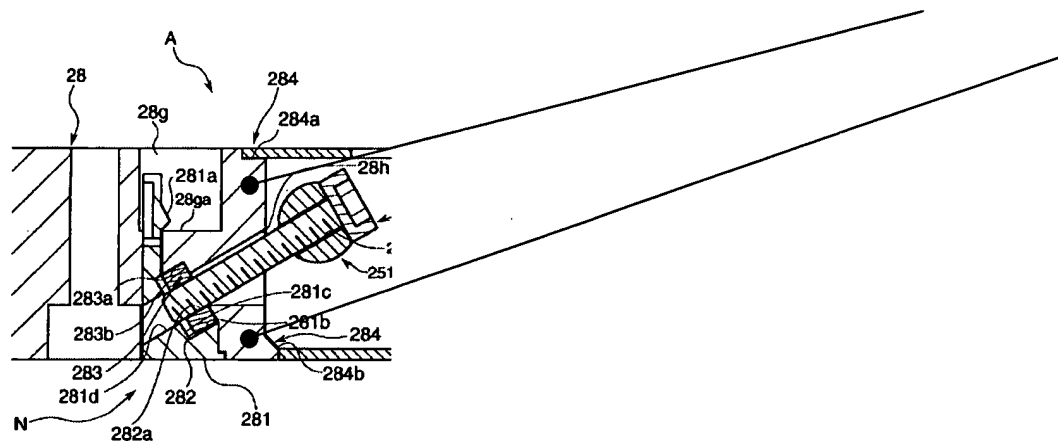
17. Applicant argues that the drawings are clear due to the nature of the lead

lines and lead lines with arrows. Examiner disagrees - see drawing objection above.

More importantly, examiner noted in both the drawings and the specifications that it was not clear exactly what was the nut retainer 283 and the nut retaining apparatus N. The only body disclosed is connecting body 28, so that is the body, but examiner believes there is much room for argument about what is the nut retainer, what exactly is the nut retaining apparatus, and now what exactly is the end surface of the body. Examiner believes 28 is clearly shown as the body, which comprises the nut retaining apparatus,

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and the nut retaining apparatus comprises the nut retainer and nut holder 281, but it is not at all clear to examiner what structurally comprises the nut retaining apparatus, and since the nut retaining apparatus comprises the nut retainer, what structurally comprises the nut retainer. Is the nut retainer the enlarged recess at the end of the bolt hole that holds the nut, (examiner believes this is 28c) or is it the/a structure pointed out below:



Conclusion

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katherine W. Mitchell whose telephone number is 571-272-7069. The examiner can normally be reached on Mon - Thurs 10 AM - 8 PM.

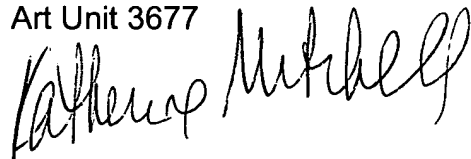
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. J. Swann can be reached on 571-272-7075. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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20. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kwm
7/25/2006

Katherine W Mitchell
Primary Examiner
Art Unit 3677

A handwritten signature in black ink, appearing to read "Katherine W Mitchell", written over the printed name and title.